

MODIS Technical Team Meeting
June 20, 2002
Building 33, Room E125

Vince Salomonson chaired the meeting. In attendance were Barbara Conboy, Michael King, Jack Xiong, Eric Vermote, Dorothy Hall, Steve Kempner, Wayne Esaias, and Robert Wolfe, with Yolanda Harvey taking notes.

1.0 Upcoming Events

- IGARSS 2002, June 24-28, 2002 in Toronto (abstract deadline past)
- MODIS Outreach Workshop on MODIS Vegetation Variables (VI/LAI/FPAR/NPP), July 15-19th 2002, University of Montana, Missoula, MT
- MODIS Science Team Meeting, July 22-24, 2002, Greenbelt Marriott, MD
- Remote Sensing of the Earth's Environment from Terra, a workshop at the International Summer School on Atmospheric and Oceanic Sciences, August 25-30, 2002, L'Aquila Italy
- 34TH COSPAR Scientific Assembly, October 10-19, 2002, in Houston, TX, (abstract deadline past)
- MODIS Outreach Workshop on Land Surface Radiation Products, October 24-25, 2002, Boston

2.0 Meeting Minutes

2.1 General Discussion

Salomonson announced that there will be no MTT meeting next week, June 27 (due to IGARSS), and he will be out of town until the July 18 meeting. Following that is the MODIS Science Team Meeting, so there will be no MTT meeting the week of July 22.

Salomonson reported on the status of the agenda for the upcoming Science Team Meeting. He showed transparencies of the draft agenda and began by pointing out that the discipline meetings will be held on Monday July 22. In the plenary sessions, (July 23 and 24) Atmospheres will be the first group, followed by Oceans, then the Land group. Several team members have not responded as to their attendance at the Science Team meeting, so putting the agenda together is a little hard at this point. There is also a plan to convene a Data Users panel on the second day including Sara Graves (new subsetting tools, etc. for EDG). When Salomonson gets back from IGARSS a preliminary agenda will be sent out to the Science Team.

Salomonson reported that they've completed the Introductory MODIS Data Products CD, and the data is on an ftp site: http://modis.gsfc.nasa.gov/pub/data_sets/ (there is an "underscore between the words "data" and "sets"). He said that Gary Alcott talked to the user services people, and Salomonson has about 40 CDs, which he is going to hand out at IGARRS. The products on the CD will be available on the ftp site. He feels that someone needs to tell NSIDC and EDC User Services about it so that if folks request data like that on the CD then they can be served.

Salomonson reported that the MODIS model in the lobby of Building 33 is having its thermal blanket installed today. Technicians from Raytheon are also trying to mount the Solar Diffuser and the Solar Diffuser door in their correct positions. Progress on the poster and plaque is also moving forward.

2.2 Instrument Status

Jack Xiong reported on the Formatter status of Terra. He said that the formatter errors are up to six million per day, and yesterday they reached 7.8 million. Bill Barnes and Mitch Davis will hold a meeting to decide when to switch to the B-side and will make a decision by next week. The options they are considering are a) to switch only the formatter to the B-side, or b) switch everything to the B-side except for the power supply. Salomonson said that he would be inclined to only switch the formatter because they don't know what the consequences for everything else would be.

Xiong reported that as for Aqua, the nadir door is still closed and everything is in science mode. They've looked at band five, and it has only one dead detector. Band 6 has 11 confirmed detectors not responding, which is two more since the pre-launch test at TRW. Xiong passed around a chart illustrating a number of aspects of the problem. He said that the signal to noise ratio is consistent with pre-launch, excepting Band 6. They have looked at a number of variables, including the NedT for the thermal emissive Bands, the linear gain term b1, and SWIR Bands thermal leak. He said that testing will be done this week. He reported that the Bands are looking good overall. There is a lot less noise than Terra's scan-by-scan gain coefficient, and the thermal bands are very stable. All noise performance (except for a couple of detectors) is within specs on Aqua. Xiong said that the thermal leak algorithm is in there (same as Terra) and that the SRCA is starting to receive data. Wolfe asked if we are getting a data flow, and Xiong said yes, data has started and has been getting better since yesterday (June 19). Xiong asked Steve Kempler to make sure that he gets first 2 days of L1A data to them right away once the instrument opens its nadir door. Lastly, he said that on June 24 at 7pm the nadir door will open.

Salomonson said that we need to get the First Light image out fast, and he requested that someone make jpegs send to them him by email that he can show on Thursday at IGARSS. Xiong said that for a good processed image, he will ask Eric Vermote and Nazmi El Saleous. Salomonson said that the press conference may be on July 2.

2.3 Atmospheres

King reported that his group has been working to improve the cloud microphysical properties product. But this week they found and fixed the problem. They fixed/improved the phase determination and also fixed four other problems. By next week they will have a substantially updated physics product to submit for testing. He reported that Wisconsin is interested in adding some new joint histograms to the level-3 joint atmosphere products. They also have found that the Linux vs. SGI comparisons are turning out to be useful in finding and solving software problems. Overall, he said, things are really very encouraging. Their results have substantially improved, and they will deliver something next week for testing. Salomonson asked whether they will be

able to declare a L1 valid product by the end of year, and King said yes. All of the level-2 atmosphere products with the exception of the cloud product are already of validation quality, and this final product should be of that quality by the collection 4 processing in October. At that point, the level-3 products will be also categorized as validated, though continued improvements are anticipated as comparisons continue with ancillary validation data sets. They will have an assessment by next month after he returns from Florida. They have added a lot of other phase determination tests as part of this update, and they are going to test certain locations (e.g., Greenland and Antarctica) that were causing trouble. There is positive progress with regard to that product. King said that they will next work on efficiency, the speed of the algorithm, and memory usage. Salomonson asked whether any of this will be mentioned at IGARRS, but King doubted it because neither he nor Steve Platnick are going to the IGARSS meeting.

2.4 Oceans

Esaias brought in a poster of Oceans collection 4 data from one week (all prods that work). He was absolutely delighted. He said that the qualities are working exactly the way that they want them to. They have removed a 0.15 K bias that was in the original data. He expects that after looking at the reprocessed data, they will be able to provide uncertainty data by the end of the summer. He said that he is going to take the poster to IGARRS to show because it illustrates very well the differences in the types of data. There has been some trouble over which algorithm to use, so they're putting all of them out there. Salomonson said that is very good news. Esaias continued that they still have to correct for sun glint, but the process is worthwhile, because doing so allows them to process to the edge of the swath. MODIS Oceans data gives greater coverage than SeaWiFS, and they will get so much better data with two MODIS instruments. Lastly, he reported that Symbios and MODAPS are already merging SeaWiFS and MODIS data.

Vermote reported that he is putting a 0.05-degree land Multi Disciplinary Data Set on the Introductory MODIS Data Products ftp site. Salomonson asked whether the jpgs will be different from the 0.25deg, and Vermote said yes, they will be at an enhanced resolution. He said that it takes a long time to transfer the data, and they may run out of space as well at the ftp site.

2.5 DAAC

Kempler reported that he went to the SEEDS workshop in San Diego, and that everything seemed to go well. Oceans is in reprocessing. Salomonson asked if it started June 15, and Kempler said yes. He said that they are getting deluged with orders, but are starting to recover from that. They have promoted the Aqua subsampler to ops. They are tallying distribution by the number of granules and gigabytes, and are seeing subsampling being used because granules orders are going up much more than gigabytes.

Wolfe reported that reprocessing is going well. All three DAACs are receiving data and are ready to receive data on Monday. Oceans processing is going fine despite a big back-load from GDAAC. Some data was lost, so they are working to get the lost data re-pushed. Exports from GDAAC are going up, ECDAAC is pushing a lot of data to the public – over 500 gigabytes per day.

Hall reported that she has been looking at the sea ice product. She feels that it qualitatively looks good and that ice surface temperature also looks good, but she has nothing to compare to. She is working with Jeff Key to see if they can say that the data is validated within 1-2 degrees K.

3.0 Action Items

3.1 New Action Items

None.

3.2 Action Items Carried Forward

3.2.1 Technical team to discuss further the issue of predicted ephemeris data and how to improve it.

Status: Open.

Ed Masuoka and Robert Wolfe plan to meet with the Terra Flight Operations Team to see if they can run definitive ephemeris 2-4 times per day. The context for this issue to provide better geolocation information for things like fire front tracking and similar issues.

3.2.2 The procedure for releasing Aqua MODIS products needs to be further refined via Discipline discussions and coordination with the Science Team leader, et al.

Status: Open.